Amendments to the Claims:

Cancel Claim 1, 3, 26, 28 without prejudice or disclaimer of the subject matter therein.

Amend the claims as shown in the following listing of claims.

The following listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (Cancelled)

2. (Currently Amended) ~~The method of Claim 1~~ A method for high accuracy media positioning in a swath printer, comprising:

mounting a computer-controlled printing element for movement along a swath axis for swath printing of an image on a print medium;

moving the printing element along the swath axis and printing at least a portion of a swath of the image on the print medium;

activating a media advance mechanism to provide a nominal advance movement between the printing element and the print medium to position for a fresh swath;

moving the printing element along the swath axis;

sensing the position of an edge of a just printed portion of said image which is nominally aligned with the scan axis, wherein said edge is a bottom edge of a previously printed swath in relation to a direction of print medium advance through the swath printer past the printing element;

providing relative motion between the print medium and the printing element to accurately position the printing element in dependence on the sensed position of the edge of the just printed portion of the image to align the top edge of the next swath to be printed in relation to the bottom edge of the previously printed swath, wherein said step of providing relative motion is carried out on the

fly as the portion of the image is being printed and the print element is moving in the scan axis.

Claim 3. (Cancelled)

4. (Currently Amended) The method of Claim [~~1~~] 2 wherein said step of providing relative motion between the print medium and the printing element is performed simultaneously with the step of moving the printing element along the swath axis to print at least a portion of the fresh swath.

5. (Currently Amended) The method of Claim [~~1~~] 2 wherein:

said providing relative motion between the print medium and the printing element is performed after printing a swath and before said moving the printing element along the swath axis to print at least a portion of a next swath.

6. (Previously presented) A method for high accuracy media positioning in a swath printer, comprising:

mounting a computer-controlled printing element for movement along a swath axis for swath printing of an image on a print medium;

moving the printing element along the swath axis and printing at least a portion of a swath of the image on the print medium;

sensing the position of an edge of the just printed portion of said image which is nominally aligned with the scan axis;

providing relative motion between the print medium and the printing element to accurately position the printing element in dependence on the sensed position of the edge of the just printed portion of the image, said providing relative motion comprising moving the printing element in a direction transverse to the swath axis.

7. (Original) The method of Claim 6 wherein said step of mounting said printing element includes mounting the printing element in a movable carriage, and said moving the printing element in a direction transverse to the swath axis includes:

positioning an actuating element between the printing element and the carriage; and

driving the actuating element to move the printing element to obtain the accurate positioning.

8. (Original) The method of Claim 6 wherein said step of mounting the printing element includes mounting the printing element in a carriage for sliding movement along a slider rod, and said moving the printing element in a direction transverse to the swath axis includes:

positioning an actuating element between the slider rod and the carriage; and

driving the actuating element to move the carriage and the printing element to obtain the accurate positioning.

9. (Original) The method of Claim 6 wherein said step of mounting the printing element includes mounting the printing element in a carriage for sliding movement along a slider rod, and said moving the printing element in a direction transverse to the swath axis includes:

positioning an actuating element between the slider rod and a corresponding slider supporting structure; and

driving the actuating element to move the slider rod and with it the carriage and the printing element to obtain the accurate positioning.

10. (Original) The method of Claim 1 wherein the step of providing relative motion between the print medium and the printing element includes incrementally moving the print medium in a direction transverse to the scan axis.

11. (Original) The method of Claim 1 wherein the printing element includes an ink-jet pen.

12. (Previously presented) A method for high accuracy media positioning in a swath printer, comprising:

mounting a computer-controlled printing element for movement along a swath axis for swath printing of an image on a print medium;

moving the printing element along the swath axis and printing at least a portion of a swath of the image on the print medium;

sensing the position of an edge of the just printed portion of said image which is nominally aligned with the scan axis;

providing relative motion between the print medium and the printing element to accurately position the printing element in dependence on the sensed position of the edge of the just printed portion of the image, said providing relative motion between the print medium and the printing element including

mounting an actuating element between each said printing element and said carriage; and

actuating each of said actuating elements to move the respective printing elements in a direction transverse to the swath axis.

13. (Previously presented) A swath printer, comprising:

a computer-controlled printing structure;

a carriage for holding the printing structure, said carriage mounted for movement along a swath axis at a print area for swath printing of an image on a print medium;

a carriage drive system for driving the carriage along the swath axis;

an optical sensor system mounted to the carriage for sensing the position of a bottom edge of a just printed portion of said image which is nominally aligned with the scan axis;

a media advance system for moving the print media along a media path and past the print area;

a fine positioning system for providing incremental relative motion between the print medium and the printing element to accurately position the printing element to align the top edge of a to-be-printed image portion in relation to the just printed portion in dependence on the sensed position of the bottom edge of the just printed portion of the image.

14. (Original) The printer of Claim 13, wherein said fine positioning system is actuated to provide relative motion to accurately position the printing element in relation to the print medium between printing successive swaths.

15. (Original) The printer of Claim 13, wherein said fine positioning system is actuated to provide relative motion to accurately position the printing element in relation to the print medium simultaneously as the printing structure is moved along the swath axis.

16. (Original) The printer of Claim 13 wherein said fine positioning system provides relative motion between the print medium and the printing element by moving the printing element in a direction transverse to the swath axis.

17. (Original) The printer of Claim 16, wherein said fine positioning system includes an actuating element between the printing structure and the carriage to move the printing structure to obtain the accurate positioning.

18. (Original) The printer of Claim 16, wherein said carriage is mounted for sliding movement along a slider rod mounted to a slider rod support structure, and said fine positioning system includes an actuating element disposed between the slider rod and the slider rod support structure to move the slider rod and with it the carriage and the printing element .

19. (Original) The printer of Claim 16, wherein said carriage is mounted for sliding movement along a slider rod, and said fine positioning system includes an actuating element disposed between the slider rod and the carriage to move the carriage and the printing structure to obtain the accurate positioning.

20. (Original) The printer of Claim 16 wherein the fine positioning system incrementally moves the print medium in a direction transverse to the scan axis.

21. (Original) The printer of Claim 13 wherein the printing structure includes an ink-jet pen.

22. (Original) The printer of Claim 13 wherein the printing element includes a plurality of ink-jet pens mounted in a carriage, and wherein said fine positioning system includes an actuating element mounted between each said pen and said carriage for moving the respective printing elements in a direction transverse to the swath axis.

23. (Original) The printer of Claim 13 wherein said fine positioning system includes a piezoelectric actuator for providing the incremental relative motion.

24. (Original) The printer of Claim 13 wherein the sensor system includes a first sensor mounted on a first side of the carriage and a second sensor mounted on a side of the carriage opposite the first side along the swath axis, the sensor system adapted for bidirectional sensing operation.

25. (Previously presented) A method for swath printing, comprising:

printing a first swath of an image on a print medium with an ink-jet printing structure;

advancing the print medium to position the medium for printing a second swath;

determining zones of the second swath which need high accuracy swath alignment;

begin printing the second swath;

during said printing of the second swath, for those zones which need high accuracy swath alignment, determine the alignment errors and store in memory appropriate error compensation values;

after completing the printing of said second swath, calculate the next media advance distance based on the stored compensation values; and

advancing the media for the next swath to be completed by a distance dependent on said next media advance distance.

26. (Cancelled)

27. (Currently Amended) ~~The method of Claim 26~~ A method for high accuracy media positioning in a swath printer, comprising:

providing a print medium;

providing a computer-controlled printing element, the printing element mounted for movement along a swath axis to print a first swath on the print medium;

moving the printing element along the swath axis and printing at least a portion of a swath on the print medium, said swath having a leading edge and a trailing edge;

providing relative motion between the printing element and the print medium to position for a fresh swath;

sensing the position of the trailing edge of the just printed swath;

providing relative motion between the print medium and the printing element to accurately position for the fresh swath in dependence on the sensed position of the trailing edge of the just printed swath to compensate for position errors between a nominal position of the trailing edge and the sensed position of the trailing edge of the just printed swath; and

moving the printing element along the swath axis to print at least a portion of the fresh swath;

wherein said step of sensing the position of the trailing edge and said step of providing relative motion between the print medium and the printing element is performed simultaneously with the step of moving the printing element along the swath axis to print at least a portion of the fresh swath.

Claim 28. (Cancelled)

29. (Currently Amended) The method of Claim ~~[26]~~ 27 wherein providing relative motion between the print medium and the printing element to accurately position for the fresh swath includes:

moving the printing element in a direction transverse to the swath axis.

30. (Original) The method of Claim 29 wherein said moving the printing element in a direction transverse to the swath axis includes:

positioning a piezoelectric element between the printing element and the carriage; and

driving the piezoelectric element to move the printing element to obtain the accurate positioning.

31. (Previously presented) A method for high accuracy media positioning in a swath printer, comprising:

mounting a computer-controlled printing element for movement along a swath axis for swath printing of an image on a print medium;

moving the printing element along the swath axis and printing at least a portion of a swath of the image on the print medium;

sensing the position of an edge of the just printed portion of said image which is nominally aligned with the scan axis;

providing relative motion between the print medium and the printing element on the fly as the portion of the image is being printed and the print

element is moving in the scan axis to accurately position the printing element in dependence on the sensed position of the edge of the just printed portion of the image.

32. (New) A printing method, comprising:

receiving a print job from a print job source, said print job consisting of text or a graphic image, or both a text and a graphic image;

mounting a computer-controlled printing element for movement along a swath axis for swath printing of the print job onto a print medium;

moving the printing element along the swath axis and printing at least a portion of a swath of the print job on the print medium;

activating a media advance mechanism to provide a nominal advance movement between the printing element and the print medium to position for a fresh swath;

moving the printing element along the swath axis;

sensing the position of an edge of a just printed portion of said print job swath which is nominally aligned with the scan axis, wherein said edge is a bottom edge of a previously printed swath in relation to a direction of print medium advance through the swath printer past the printing element;

providing relative motion between the print medium and the printing element to accurately position the printing element in dependence on the sensed position of the edge of the just printed portion of the print job to align the top edge of the next swath to be printed in relation to the bottom edge of the previously printed swath.